

**REMARKS**

Claims 2, 3, 11, 12 and 17 have been rejected.  
Claims 3 and 12 have been cancelled. Claims 2, 11 and 17  
remain pending in the application.

***Claim Objections***

1. Claim 3 is objected to because of the following  
informalities: the claim recites the term "organism".

Claim 3 has been cancelled.

2. Claim 11 is objected to because of the  
following informalities: the claim recites the phrase  
"DNA comprises an IPNS like SEQ ID NO: 1".

Claim 11 has been amended to recite: "the  
isolated DNA encodes an IPNS" since SEQ ID NO:1 is an  
amino acid sequence and not a nucleic acid sequence.

***Claim Rejections- 35 U.S.C. §112***

1. Claim 17 is rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 17 has been amended so as to depend only from Claim 11. Claim 17 has been amended so that it particularly points out and distinctly claims the subject matter which applicant regards as the invention. Reconsideration of the rejection is requested.

2. Claims 2 and 11 and Claims 3 and 12 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 3 and 12 have been cancelled. Claims 2 and 11 have been amended to recite "IPNS having the amino acid sequence of SEQ ID NO:1". Claims 2 and 11 have been amended so that they particularly point out and

distinctly claim the subject matter which applicant regards as the invention. Reconsideration of the rejection is requested.

3. Claims 11 and 12 is rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 has been cancelled and the term "codon" has been deleted from Claim 11. Claim 11 has been amended to refer to amino acid residues. Therefore the claims particularly point out and distinctly claim the subject matter which applicant regards as the invention. Reconsideration of the rejection is requested.

4. Claims 2 and 11 are rejected under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 2 and 11 have been amended to recite "IPNS having the amino acid sequence of SEQ ID NO:1". The specification teaches polynucleotides encoding IPNS of SEQ ID NO:1 in Examples 1 and 2, and teaches *A. nidulans* comprising the polynucleotides in Example 3. Therefore the subject matter which was described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Reconsideration of the rejection is requested.


5. Claims 2 and 11 are rejected under 35 U.S.C. §112, first paragraph, because the specification, while being enabled for a polynucleotide encoding an IPNS of SEQ ID NO:1 and an *Aspergillus nidulans* comprising said polynucleotide, does not reasonably provide enablement for polynucleotides encoding any recombinants, mutants and variants of SEQ ID NO:1, except having an Arg residue at position 212 or an *Aspergillus nidulans* comprising said polynucleotides.

Claims 2 and 11 have been amended to recite "IPNS having the amino acid sequence of SEQ ID NO:1". Examples 1 and 2 in the specification provide enablement for an isolated DNA encoding an isopenicillin N synthetase (IPNS) wherein the isolated DNA encodes an IPNS having the amino acid sequence of SEQ ID NO:1. Example 3 in the specification provides enablement for a modified *Aspergillus nidulans* for producing penicillin, comprising a mutation in a polynucleotide encoding an isopenicillin N synthetase (IPNS) wherein the mutation produces the IPNS having the amino acid sequence of SEQ ID NO:1. Reconsideration of the rejection is requested.

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The above amendments were made to cancel claims and comply with requirements of form set forth in the previous Office action. Therefore, entry of this amendment is requested.

Respectfully submitted,

  
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